

REMARKS

Claims 1-17 are pending in this application. By this Amendment, new claim 17 is added. Support for the new claim may be found in the specification (see paragraph [0023]). No new matter is added.

The courtesies extended to Applicant's representative by Examiners Po and Caldarola at the interview held January 10, 2011, are appreciated. The reasons presented at the interview as warranting favorable action are incorporated into the remarks below, which constitute Applicant's separate record of the substance of the interview.

In view of the foregoing amendments and the following remarks, reconsideration and allowance of the claim are respectfully requested.

I. Rejections Under 35 U.S.C. §103

A. Kamei and Enikolopov

The Patent Office rejects claims 1-7, 10-12 and 16 under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 4,702,745 ("Kamei") as evidenced by U.S. Patent No. 4,607,796 ("Enikolopov"). This rejection is respectfully traversed.

The claimed method for dewatering and reducing pore volume of water-containing coal comprises: (1) heating the water-containing coal at a temperature of 100°C to 350°C under a pressure not less than a saturated steam pressure at the temperature for the heating, while (2) simultaneously applying a shearing force of 0.01 MPa to 20 MPa to the water-containing coal, in a sealed vessel, as recited in claim 1. The claimed method provides a way to obtain dewatered coal, which is prevented from reabsorbing water and oxygen once dewatering is completed (specification, paragraph [0006]). The combination of features recited in claim 1 would not have been obvious to one of ordinary skill in the art over Kamei, as evidenced by Enikolopov.

The Patent Office alleges that Kamei discloses various features recited in claim 1. However, the Patent Office concedes that Kamei does not disclose) simultaneously applying a shearing force of 0.01 MPa to 20 MPa to the water-containing coal, as recited in claim 1, and alleges that Enikolopov cures this deficiency. Applicant respectfully disagrees. For at least the reasons set forth below, one of ordinary skill in the art would have had no reason or rationale to have modified Kamei, or even to have comprehended and/or accepted, that Kamei as evidenced by Enikolopov would have rendered obvious each and every feature of claim 1.

Kamei discloses a method for dewatering a high moisture porous organic solid by first (1) heating the solid, then (2) compressing the solid at the same temperature and pressure of the heating step, and finally (3) lowering the pressure (depressurizing) the solid, while maintaining compression (Kamei, col. 2, lines 45-68). Thus, Kamei merely discloses a method of heating, compressing (at the same temperature and pressure of heating) and depressurizing a high moisture solid. No shear force is applied or disclosed in Kamei.

Enikolopov discloses methods of making powder from rubber and rubber vulcanization products, comprising compressing the rubber and pulverizing the compressed rubber material by applying a pressure of 0.2 to 50 MPa, and a shear force of 0.03 to 5 N/mm² (Enikolopov, col. 1, lines 8-9; and col. 2, lines 31-40). The mere fact that Enikolopov compresses, and then applies pressure and a shearing force to rubber in an extruder to pulverize the rubber, does not provide any reason or rationale to one of ordinary skill in the art to have understood that a similar shearing force could, would, or should occur with coal in an extruder, as discussed during the interview. Taken at its best, Enikolopov simply confirms or evidences to one of ordinary skill in the art that there are in fact differences between applying a pressure and applying a shear force, as evidenced by its separate treatment of said distinct types of force. Thus, a method that discloses application of a pressure force (*e.g.*,

Kamei) does not, even as evidenced by Enikolopov (which pulverizes rubber), mean that a shear force would, could or should be applied, absent disclosure to the contrary.

Thus, in view of the above, one of ordinary skill in the art would have understood that a high moisture porous organic solid can be dewatered by applying heat and compression by pressure (from Kamei), and, in a disjointed manner, that rubber can be pulverized by compression, pressure and shear (from Enikolopov). However, there is simply no reason or rationale to have combined Kamei as evidenced Enikolopov, in a manner necessary, to have arrived at the claimed method, at least without hindsight benefit of Applicant's specification, as discussed during the interview.

Based on the above, Kamei, as evidenced by Enikolopov, would not have rendered claim 1 obvious. The remaining claims variously depend from claim 1 and are patentable for at least the reasons that claim 1 is patentable, as well as for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

B. Kamei, Verschuur and Gregory

The Patent Office rejects claims 8 and 9 under 35 U.S.C. §103(a) as allegedly being unpatentable over Kamei in view of U.S. Patent No. 4,216,082 ("Verschuur"); and rejects claims 13-15 under 35 U.S.C. §103(a) as allegedly being unpatentable over Kamei in view of U.S. Patent No. 2,824,709 ("Gregory"). These rejections are respectfully traversed.

The Patent Office applies Verschuur and Gregory as allegedly addressing additional features recited in dependent claims 8, 9 and 13-15. Thus, Verschuur and Gregory do not cure the deficiencies of Kamei with respect to claim 1.

Thus, Kamei, Verschuur and Gregory would not have rendered claim 1 obvious. Claims 8, 9 and 13-15 variously depend from claim 1 and, thus, are patentable for at least the reasons that claim 1 is patentable, as well as for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

II. New Claim

By this Amendment, new claim 17 is added. New claim 17 depends from claim 1 and, thus, is patentable for at least the reasons set forth above with respect to claim 1, as well as for the additional features recited therein.

New claim 17 is directed to features of the instrument as described in paragraph 3 of the Declaration Under 37 C.F.R. §1.132 of Yukuo Katayama filed on December 18, 2009, as discussed during the interview. Specifically, new claim 17 recites, *inter alia*, "wherein the stirring blade is comprised of a plurality of blades of varying pitch, the pitch being greatest at a site nearest to a supply port." Kamei, Enikolopov, Verschuur and Gregory do not disclose, and would not have rendered obvious, the above features of claim 17, as discussed during the interview.

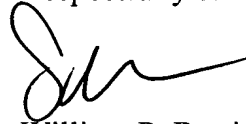
Prompt examination and allowance of new claim 17 are respectfully requested.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-17 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



William P. Berridge
Registration No. 30,024

Sarah Lhymn
Registration No. 65,041

WPB:SQL/hs

Attachment:
Petition for Extension of Time

Date: January 24, 2011

OLIFF & BERRIDGE, PLC
P.O. Box 320850
Alexandria, Virginia 22320-4850
Telephone: (703) 836-6400

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